

10/671,639

NB 1/3/07

The paragraph in the specification beginning on page⁸, line 22 is amended as follows:

The data presented in Figures 4-6 was obtained by finite element modeling using commercially available software. The relevant parameters for the modeling were a pole of width 120 nm, thickness 120 nm, with a tapered leading edge, with a throat of 400 nm, a gap to the trailing shield of 50 nm and a trailing shield throat (thickness perpendicular to ABS near the pole) of 50nm. The thickness of the shield on the wafer would be 200nm minimum (in the down-track direction) and the width of the floating shield was about 15 microns in the cross- track direction. These parameters are appropriate for use with a head-to-underlayer spacing of 50 nm, and should be scaled for use with other values of head-to-underlayer spacing proportionately. Optionally the thickness of the shield perpendicular to the ABS may be increased for distances greater than about 1 micron from the center of the main pole piece (track) to improve mechanical integrity and allow for some non-planarity of lapping, but it is not essential to the working of the invention. Figure 9 illustrates the alternative embodiment where the floating-trailing shield 44 is thicker on the sides than in the center in a section view perpendicular to the ABS. Accordingly in this model the off-center thickness of the floating-trailing shield was increased to about 200nm.

10/671639

4 of 14

HSJ920030088US1